

**REMARKS OF NICHOLAS DEGANI
AT THE UNIVERSITY OF MISSISSIPPI TECH SUMMIT**

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Thank you. It's truly a pleasure to be here. First off, it's an honor to be part of a program with Internet pioneers like Jim Clark and Jim Barksdale. More important, it's great to visit Oxford and Ole Miss for the first time. Now, I get why they call this the Hospitality State. Not only is everybody so friendly, but I love meeting people who can appreciate the subtleties of both William Faulkner and Chicken-on-a-Stick.

Having said all that, I do have one quibble. I can't believe my first time to visit the legendary Grove comes three days BEFORE the kickoff football weekend. Talk about bad timing. That's like making your first trip to the legendary Grove three days before the kickoff football weekend.

Kidding aside, thanks again to everyone at Ole Miss for the warm welcome. Thank you Chancellor Vitter for hosting today's summit, thank you Alice Clark and Amy Lewis for making us all feel so welcome, and thank you LouAnn Woodward, Josh Gladden, and Allyson Best for facilitating our panels this afternoon.

And a special thanks to Senator Wicker, or as we call him at the FCC, Mr. Chairman. You all know better than I that Senator Wicker has championed expanding digital opportunity across Mississippi. But having watched him ably guide the FCC's oversight subcommittee from a front-row seat, I can tell you that Senator Wicker is not just a local leader on technology issues, he's a national leader. As the FCC grapples with issues from advancing next-generation wireless connectivity to closing the digital divide, I know Chairman Pai is grateful to have Chairman Wicker as an effective partner and looks forward to working together to maximize the benefits of the digital revolution for the American people.

That's what I want to talk about today: the FCC's efforts to harness the power of communications technology to improve the lives of the American people and boost economic growth and U.S. competitiveness. I'd like to focus on three specific priorities. Think of them as the three Is: Inclusion, Investment, Innovation.

Let's start with digital inclusion, since this issue is at the heart of the Communications Act, the FCC's founding statute.

First, the numbers. About 7 percent of the country lacks access to high-speed home broadband, which the Commission defines as 25 Mbps. But if you dig deeper, you see that the digital divide is particularly acute in rural areas. Only 2 percent of Americans in urban areas lack access to broadband at 25 Mbps. For rural Americans, that number jumps to 28 percent.

Now, look at Mississippi. A 2016 FCC report found that 34 percent of Mississippians had no option for fixed high-speed broadband. That's the highest percentage of any state in the country. For rural parts of the state, we're talking about 60 percent of residents without access.

My boss, FCC Chairman Ajit Pai, has said that his number one priority is making sure that every American who wants to participate in the digital economy should be able to. As the numbers make clear, we're not where we want to be or where we need to be.

Why does the bridging the digital divide matter?

Since becoming a commissioner five years ago, Chairman Pai has traveled far and wide to shed light on that question. And no, I don't mean jet-setting to major technology hubs like Silicon Valley or Boston. I'm talking about road trips to visit the people and places we seldom associate with the digital

revolution, such as Diller, Nebraska and Minneola, Minnesota. Literally, road trips. A few years back, then-Commissioner Pai drove from Jackson, Mississippi to Savannah, Georgia, stopping in places like Carthage and Starkville along the way. He was impressed by what he saw—I'm talking about broadband, of course, not football. And this year alone, the Chairman has logged thousands of miles in a rental car, including one five-state, 18-stop, 1,672-mile road trip from Wisconsin to Wyoming. I know because I was the one doing much of that driving.

These visits have illuminated the costs of being offline. The Chairman recently met with a resort owner in rural West Virginia who is losing out on business because visitors expect Internet service he can't offer. Just last week, the Chairman met with a school superintendent in northwest Nevada who oversees 11 schools and complained of a digital divide within his own district. He said the students in the county's five rural schools are falling behind their urban neighbors because they lack the connectivity to use the latest digital learning tools. But the most distressing story came on our visit to the Rosebud Sioux Indian reservation in South Dakota. We heard the story of a woman who was found dead in her home, clutching her cellphone. She had dialed 911 a total of 38 times—but the calls never went through because there was no wireless coverage.

For all the challenges revealed by these visits, they have told us even more about the benefits that flow from closing the digital divide. As the Chairman likes to say, broadband has given rise to the democratization of entrepreneurship. With a plan and an Internet connection, anyone, anywhere can start a business and immediately reach a worldwide customer base without asking anyone for permission.

In Youngstown, Ohio, we met with the founders of multiple start-ups doing everything from virtual reality gaming to 3D printing and additive manufacturing. In Cleveland, we saw how telehealth is shortening wait times for urgent care and improving patient outcomes, including life-altering ways to assess and stabilize stroke patients. In Pittsburgh, we met the inventor of a language skills mobile app that crowdsources lesson plans and already has 80 million users worldwide.

Jobs, education, healthcare, transportation, agriculture, you name it. The future is digital. That's why the Commission is working to make sure every American isn't just watching the digital revolution, but experiencing it.

To promote digital inclusion, the biggest mechanism in the FCC's proverbial toolkit would be our universal service programs. These are public-private partnerships that provide direct support to spur the buildout of wired and wireless networks in sparsely populated areas where the economic incentives for private investment don't exist. To give you a sense of the scale of these programs, last year the FCC's universal service programs invested \$180 million in Mississippi.

Chairman Pai has moved to reinvigorate these programs, with a focus on assuring fiscal responsibility and making sure that these programs are leveraging—not displacing—private capital expenditures. To that end, this year the Chairman created the Rural Broadband Auctions Task Force to oversee two multi-billion dollars auctions we plan to hold in the near future to help connect rural America.

Coming up first is the Connect America Fund Phase II reverse auction. Here, the FCC has allocated nearly \$2 billion to bring high-speed broadband to families without it—with provisions that will encourage Internet service providers to offer the very best services (up to a Gigabit) to consumers while stretching our tax dollars as far as possible with an efficient, auction-based market mechanism.

Next will be the Mobility Fund Phase II auction, which as its name implies will focus on wireless broadband. With \$4.53 billion at stake, the Commission has adopted a framework to target rural areas without 4G LTE and bring new high-speed services to those areas so that farmers, ranchers, families, and friends can all go online wherever they are. And I cannot mention the Mobility Fund without again thanking Chairman Wicker, whose office was instrumental in seeing this auction move forward to the benefit of rural Mississippians and all rural Americans.

Now how are we going to increase digital inclusion? That's the second topic I want to focus on today: investment.

We not only want to make sure that our wired and wireless networks are universally accessible, we want them to be the fastest, most robust broadband networks in the world. That will require massive amounts of private sector investment. How much? In recent years, collective capital expenditures for U.S. broadband providers have averaged about \$75 billion annually. That's more capital investment than any other sector of our economy.

That's why Chairman Pai has made it a priority to create a regulatory environment that incentivizes companies to invest even more in high-speed networks. As he often notes: New, better networks don't have to be built. Business risks don't have to be taken. Capital investments don't have to be made. And the more difficult government makes the business case for deployment, the less likely it is that broadband providers big and small will invest the billions of dollars needed to connect consumers.

Intuitively, we all get that bureaucratic red tape at all levels of government can slow network deployment and increase costs. Over my last decade at the Commission, I have heard countless stories of companies that want to invest—even have work crews hired and fiber ready to deploy—but are stuck waiting for one government approval after another. On our road trip through the Great Northern Plains, one company explained how it sometimes costs more to deploy a network across a railroad crossing than through an entire town. Others have explained that they would rather stretch fiber miles out of the way to avoid crossing federal lands—because the approval process there can stretch on for years.

Accordingly, the Commission has launched a series of proceedings to eliminate unnecessary barriers to investment and make it easier to install wired and wireless broadband infrastructure. These efforts focus on weedy issues like access to utility poles and siting wireless infrastructure, so I'll spare you the details.

But here's why they are a big deal. Wireless carriers are moving full steam ahead with plans to roll out what they are calling 5G networks. As we move from 4G to 5G, mobile connectivity will become much faster, with fiber-like, gigabit speeds reached in early trials. More relevant to this point, network architecture will also become much more infrastructure-intensive in a 5G world. Large cell towers will be replaced by thousands upon thousands of densely-deployed small cells. Clearing the regulatory underbrush could remove a lot of delays and higher costs as 5G rolls out.

Last but not least is innovation. Broadband-enabled innovation has made U.S. technology firms the most valuable companies in the world, generated trillions of dollars in economic value for U.S. consumers, and improved our quality of life in myriad ways.

Chairman Pai is determined that the U.S. will continue to lead the world in digital innovation. One area where we are particularly excited about the possibilities of game-changing innovation is the aforementioned 5G connectivity. 5G promises exponential growth in the Internet of Things, major advances in augmented and virtual reality, cooperative collision avoidance for cars, remote robotic surgery. And those are just the things we can already foresee.

To seize the opportunities of 5G and to accommodate the ongoing surge in mobile data traffic, the FCC is working aggressively to free up spectrum in the high, mid, and low bands for commercial wireless services. That means ensuring that licensed spectrum can be put to its highest and best use. And that also means dedicating more spectrum for unlicensed uses. U.S. innovators used unlicensed spectrum to develop Wi-Fi and Bluetooth, and we want to see what they come up with next.

The Commission has also committed to speed our processes to allow new services and devices to come to market, setting a timeline for reviews by our Office of Engineering and Technology. For example, within a month of the Chairman taking office, the FCC authorized the first-ever LTE-U (LTE for unlicensed) devices, which allows wireless providers to share the road, so to speak, with other

unlicensed uses. That action means consumers get to enjoy the best of both worlds: a more robust, seamless experience when their devices are using cellular networks and the continued enjoyment of Wi-Fi, one of the most creative uses of spectrum in history.

Innovation. Investment. Inclusion. These are the top priorities of the Pai FCC. We're proud of what we've be able to accomplish in support of these goals, but recognize that we have much more to do. I look forward to engaging with all of you today and getting your thoughts on how we can expand digital opportunity to all Americans.

I'll close with this. Think about that day in 2014 when Ole Miss beat Bama. Think about the perfect fall weather. Think about ESPN Gameday in the Grove. Think about the go-ahead touchdown pass. Think about the game-clinching interception. Think about the crowd rushing the field. Think about the goalposts being carried through the Square. Think about Katy Perry stage diving at Funky's. Now think about when y'all beat Bama again the next year. I don't have a point about any of this. I'm just pandering to leave y'all feeling as good and happy as everyone has made me feel.

Thank you, and Hotty Toddy.